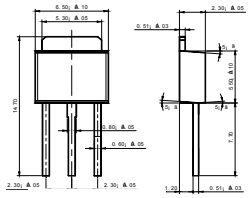
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-251/TO-252-2L Plastic-Encapsulate Transistors

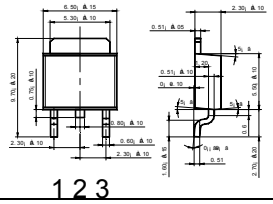
CJ7805 Three-terminal positive voltage regulator

TO-251
TO-252-2



1.IN
2.GND
3.OUT

1 2 3



1 2 3

FEATURES

Maximum Output current

I_{OM}: 1.5 A

Output voltage

V_o: 5V

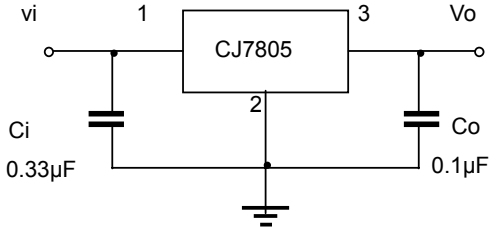
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	0-+125	℃
Storage Temperature Range	T_{STG}	-55-+150	℃

ELECTRICAL CHARACTERISTICS(Vi=10V,Io=500mA,0℃<Tj<125℃,Ci=0.33μF,Co=0.1μF, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	Vo	Tj=25℃	4.8	5.0	5.2	V
		7V≤V_i≤20V, Io=5mA-1A Po< 15W	4.75	5.00	5.25	V
Load Regulation	ΔVo	Tj=25℃, Io=5mA-1.5A		9	100	mV
		Tj=25℃, Io=250mA-750mA		4	50	mV
Line regulation	ΔVo	7V≤V_i≤25V, Tj=25℃		4	100	mV
		8V≤V_i≤12V, Tj=25℃		1.6	50	mV
Quiescent Current	Iq	Tj=25℃		5	8	mA
Quiescent Current Change	ΔIq	7V≤V_i≤25V		0.3	1.3	mA
	ΔIq	5mA≤I_O≤1A		0.03	0.5	mA
Output Noise Voltage	V_N	10Hz≤ f ≤100KHz		42		uV
Ripple Rejection	RR	8V≤V_i≤18V,f=120Hz,Tj=25℃	62	73		dB
Dropout Voltage	Vd	Tj=25℃, Io=1A		2		V
Short Circuit Current	Isc	Vi=35V, Ta=25℃		230		mA
Peak Current	Ipk	Tj=25℃		2.2		A

TYPICAL APPLICATION



Typical Perfomance Characteristics

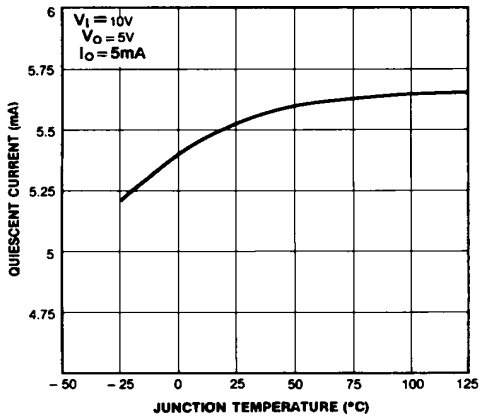


Figure 1. Quiescent Current

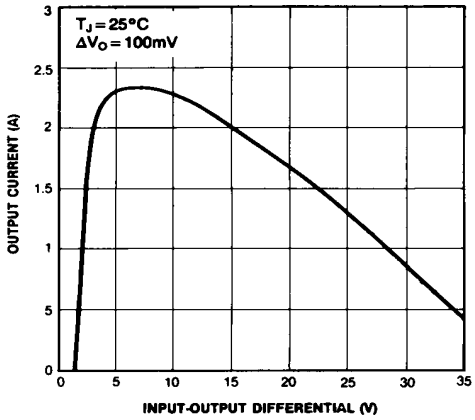


Figure 2. Peak Output Current

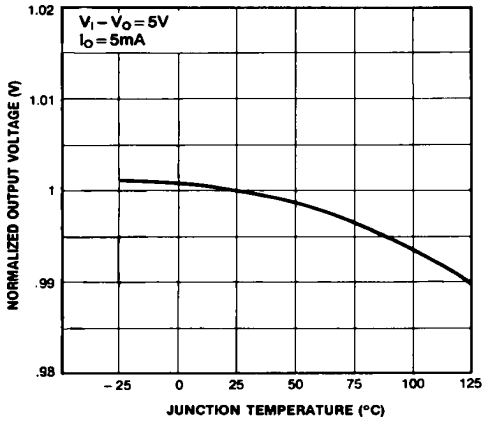


Figure 3. Output Voltage

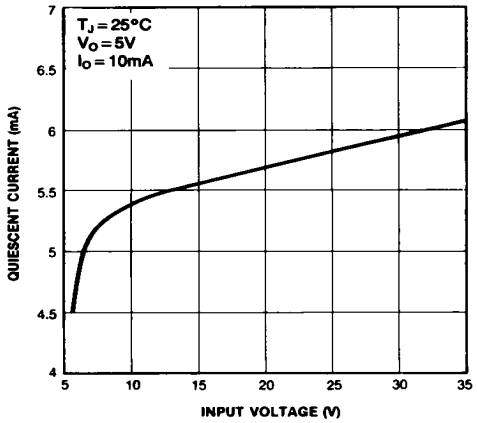


Figure 4. Quiescent Current

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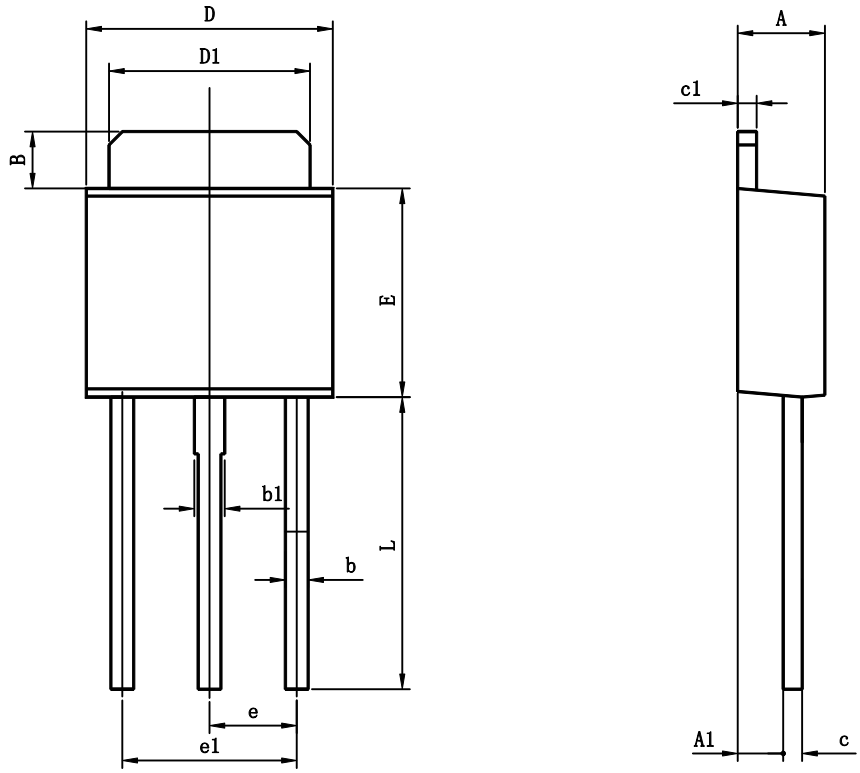
TO-251 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	2.200	2.400	0.087	0.094
A1	1.020	1.270	0.040	0.050
B	1.350	1.650	0.053	0.065
b	0.500	0.700	0.020	0.028
b1	0.700	0.900	0.028	0.035
c	0.430	0.580	0.017	0.023
c1	0.430	0.580	0.017	0.023
D	6.350	6.650	0.250	0.262
D1	5.200	5.400	0.205	0.213
E	5.400	5.700	0.213	0.224
e	2.300TYP		0.091TYP	
e1	4.500	4.700	0.177	0.185
L	7.500	7.900	0.295	0.311

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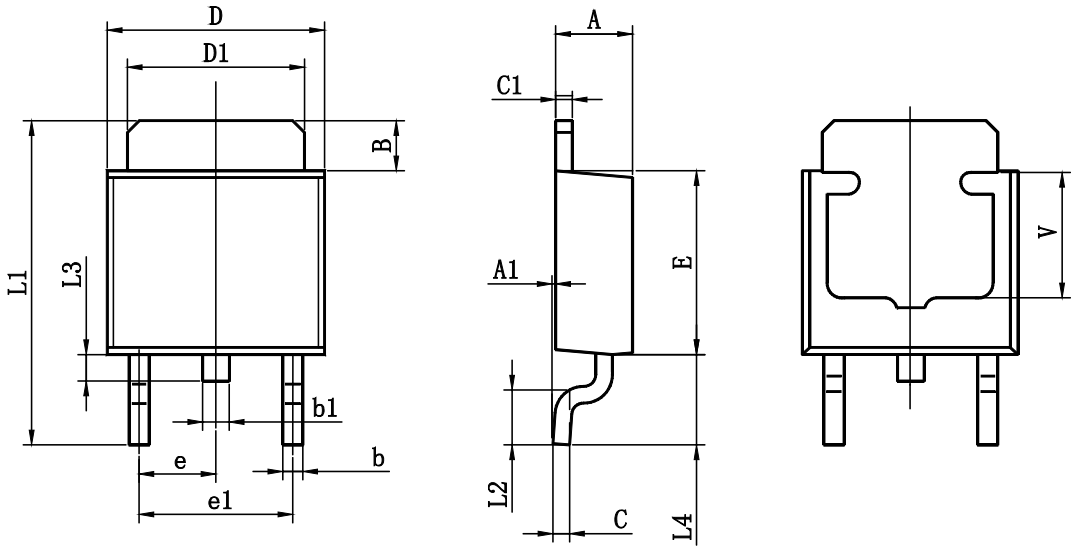
TO-252-2L PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
B	1.350	1.650	0.053	0.065
b	0.500	0.700	0.020	0.028
b1	0.700	0.900	0.028	0.035
c	0.430	0.580	0.017	0.023
c1	0.430	0.580	0.017	0.023
D	6.350	6.650	0.250	0.262
D1	5.200	5.400	0.205	0.213
E	5.400	5.700	0.213	0.224
e	2.300TYP		0.091TYP	
e1	4.500	4.700	0.177	0.185
L1	9.500	9.900	0.374	0.390
L2	1.400	1.780	0.055	0.070
L3	0.650	0.950	0.026	0.037
L4	2.550	2.900	0.100	0.114
V	3.80REF		0.150REF	